MATERIAL SAFETY DATA SHEET

Date Issued: 09/14/2010
MSDS No: ALB

AERO-LAC

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: AERO-LAC
PRODUCT DESCRIPTION: AERO-LAC
PRODUCT CODE: ALB

MANUFACTURER
Tarr, LLC
P.O. Box 12570
Portland, OR 97212
Service Number: 503-288-5294

24 HR. EMERGENCY TELEPHONE NUMBERS
CHEMTREC (US Transportation) :(800) 424 - 9300
CANUTEC (Canadian Transportation) :(613) 996 - 6666

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: DANGER! Flammable liquid and vapor. Harmful or fatal if swallowed. Vapors are heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger. Can cause severe lung damage and may be fatal if swallowed. Causes skin irritation. May be harmful if swallowed. May cause CNS depression.

POTENTIAL HEALTH EFFECTS

EYES: Liquid is moderately irritating to the eyes. High vapor concentrations may also be irritating. Direct contact with the liquid or exposure to its vapors or mists may cause stinging, tearing, redness.

SKIN: Liquid is mildly irritating to the skin. May cause a burning sensation, redness and/or swelling. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

INGESTION: Liquid is moderately toxic and may be harmful if swallowed. Ingestion of product may result in vomiting; aspiration (breathing) of vomitus into the lungs must be avoided as even small quantities may result in aspir. pneumonitis. Serious lung damage and possibly fatal chemical pneumonia (chemical pneumonitis) can develop if this occurs. May cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Significant exposure may result in unconsciousness and death.

INHALATION: Breathing of high vapor concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death. Vapors expected to be slightly irritating. Prolonged and repeated exposures to high concentrations may cause hearing loss. Chronic hydrocarbon abuse (for example, sniffing glue or light hydrocarbons such as contained in this material) has been associated with irregular heart rhythms and potential cardiac arrest.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

ACUTE TOXICITY: Early to moderate CNS depression may be evidenced by giddiness, headache, dizziness, and nausea; in extreme cases, unconsciousness and death may occur. Aspiration pneumonitis may be evidenced by coughing, labored breathing and cyanosis (bluish skin). In severe cases death may result.

CHRONIC EFFECTS: Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product. Impaired function from preexisting disorders may be aggravated by exposure to this product. The following organs and/or organ systems may be damaged by overexposure to the material. Heart, kidney, liver, auditory system. In severe cases death may result.

CARCINOGENICITY: Toluene is not known to be mutagenic or carcinogenic. However, the available human and experimental data are limited and insufficient to assess carcinogenic potential. Toluene is not listed as a carcinogen by NTP, IARC, or OSHA. Intentional abuse of toluene vapors has been linked to damage of brain, liver, kidney and to death. Many case studies involving abuse during pregnancy clearly indicate that toluene is a developmental toxicant. Developmental toxic effects comparable to those observed in humans have been seen in lab animals but the effects were generally associated with maternal toxicity.

MEDICAL CONDITIONS AGGRAVATED: Preexisting eye, skin and respiratory disorders may be aggravated by exposure to this product. Impaired function from preexisting disorders may be aggravated by exposure to this product. The following organs and/or organ systems may be aggravated and/or damaged by overexposure to the material. Heart, kidney, liver, auditory system, blood, nervous system, lungs. In severe cases death may result.

ROUTES OF ENTRY: Inhalation, skin absorption, skin contact, eye contact.

SENSITIZATION: While there is no evidence that industrially acceptable levels of toluene vapors (e.g., the TLV) have produced cardiac effects in humans, animal studies have shown that inhalation of high levels of toluene produced cardiac sensitization. Such sensitization may cause fatal changes in heart rhythms. This latter effect was shown to be enhanced by hypoxia or the injection of adrenalinlike agents. Prolonged and repeated exposures to high concentrations of toluene have resulted in hearing loss in laboratory rats. While the effect of solvents on the human auditory system is uncertain, solvent abusers exposed to high doses of toluene show signs of hearing loss, and occupational exposure to toluene may interact with noise in causing hearing loss in the work environment. The effects of solvents on human hearing are uncertain. Solvent abusers and noise interaction with toluene in the work environment may cause signs of hearing loss.

HEALTH HAZARDS: Light hydrocarbons like this one have been associated with cardiac sensitization in abuser situations. Hypoxia or the injection of adrenaline-like substances enhances these effects.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS	EINECS
Benzene, methyl-	45 - 55	108-88-3	203-625-9
Benzene	< 0.01 - 0.1	71-43-2	- -
Xylenes (o-,m-,p- isomers)	40 - 50	1330-20-7	215-535-7
Ethyl benzene	5 - 10	100-41-4	- -

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Rest

eyes for 30 minutes. If redness, burning, blurred vision or swelling persist, contact a physician.

SKIN: Remove contaminated clothing/shoes. Wipe off excess material from exposed area. Flush with large amounts of water for at least 15 minutes, by the clock, and follow by washing with soap, if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment. Do not reuse clothing until cleaned.

INGESTION: If swallowed, DO NOT INDUCE vomiting. If conscious, have victim rinse mouth out with water, then drink sips of water to remove taste from mouth. DO NOT GIVE LIQUIDS TO A DROWSY, CONVULSING OR UNCONSCIOUS PERSON. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Transport to nearest medical facility for additional treatment.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Seek immediate medical attention.

NOTES TO PHYSICIAN: If more than 2.0 ml per kg has been ingested and vomiting has not occurred, emesis should be induced with supervision. Keep victim's head below hips to prevent aspiration.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: (40°F) to (81°F) TAG CC

FLAMMABLE LIMITS: 0.01 to 0.071

AUTOIGNITION TEMPERATURE: (810°F) to (986°F)

GENERAL HAZARD: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

EXTINGUISHING MEDIA: Use water fog, "alcohol" foam, dry chemical, or C02. Do not use a direct stream of water. Material will float and can be re-ignited on surface of water.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide and unidentified organic compounds may be formed during combustion.

EXPLOSION HAZARDS: When heated above the flash point, this material emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flash point.

FIRE FIGHTING PROCEDURES: WARNING! Flammable Liquid. Vapors are heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger. Clear fire area of unprotected personnel. Do not enter confined fire space without full bunker gear, including a positive pressure NIOSH approved SCBA. Cool fire exposed containers with water.

6. ACCIDENTAL RELEASE MEASURES

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Keep material out of storm sewers and ditches which lead to waterways.

GENERAL PROCEDURES: WARNING. Flammable. Ventilate area of leak or spill. Remove all sources of ignition. Clean-up personnel require protective clothing and respiratory protection from vapors. Only specially trained or qualified personnel should handle the emergency.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Keep away from heat, sparks, and flame. Surfaces that are hot may ignite even liquid product in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other

sources of ignition prior to use and until all vapors are gone.

HANDLING: Do not taste or swallow. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep away from heat, sparks, and flame. Surfaces that are hot may ignite even liquid product in the absence of sparks or flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors are gone.

STORAGE: Keep away from heat, sparks and flames. Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

COMMENTS: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition; they may explode and cause injury or death.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)					
		EXPOSURE LIMITS			
		OSHA PEL		ACGIH TLV	
Chemical Name		**ppm**	**mg/m³**	**ppm**	**mg/m³**
Benzene, methyl-	**TWA**	200		50 [2]	188 [2]
	STEL	300 [1]	[1]		
Benzene	**TWA**	1 % [3]	[3]	0.5 %	
	STEL	5		2.5	
Xylenes (o-,m-,p- isomers)	**TWA**	100	435	100	434
	STEL			150	651
Ethyl benzene	**TWA**	100	435	100	434
	STEL			125	543

OSHA TABLE COMMENTS:
1. C = Ceiling
2. S = Skin
3. Carcinogen

ENGINEERING CONTROLS: Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits. Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Use chemical safety goggles and/or full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work areas.

SKIN: Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

RESPIRATORY: If exposure may or does exceed occupational exposure limits (Sec. 8) use a NIOSH approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-suppling respirator or an air-purifying respirator for organic vapors.

PROTECTIVE CLOTHING: Where splashing is possible, full chemically resistant protective clothing (e.g., acid suit) and boots are required.

WORK HYGIENIC PRACTICES: Use good personal hygiene when handling this product. Wash hands after use, before eating, drinking, smoking, or using the toilet.

OTHER USE PRECAUTIONS: May be harmful or fatal if swallowed. May irritate body tissues. Use with adequate ventillation. Avoid breathing vapor. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

COMMENTS: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

Chemical Name	Flash Point (°C)	Solubility in Water	Specific Gravity
Benzene, methyl-	4.5 TAG CC	0.07% (74 deg. F)	0.87
Xylenes (o-,m-,p- isomers)	27 TAG CC	Solubility negligible in water.	0.87

PHYSICAL STATE: Liquid

ODOR: Aromatic hydrocarbon odor.

COLOR: Clear, colorless liquid.

pH: Essentially neutral.

PERCENT VOLATILE: 100

VAPOR PRESSURE: Not Determined

VAPOR DENSITY: Heavier than air.

BOILING POINT: (232°F) to (293°F)

FREEZING POINT: NDA = no data available.

MELTING POINT: (-139°F) to (-54°F)

FLASHPOINT AND METHOD: (40°F) to (81°F) TAG CC

DENSITY: 7.253

SPECIFIC GRAVITY: 0.869 to 0.873

(VOC): 7.253 lbs./gal.

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

POLYMERIZATION: Avoid heat, flame, and other sources of ignition.

CONDITIONS TO AVOID: Avoid strong oxidizers. Xylene will attack some forms of plastics, rubber and coatings.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

11. TOXICOLOGICAL INFORMATION

ACUTE

Chemical Name	ORAL LD_{50} (rat)	DERMAL LD_{50} (rabbit)	INHALATION LC_{50} (rat)
Benzene	636 mg/kg (Rat)	> 14000 mg/kg (Rabbit)	~ 4000 (NINHL rat)
Xylenes (o-,m-,p- isomers)	4300 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	6700 ppm / 4 hours (rat)

EYES: 9.0 /110 (rabbit)

Notes: Draize - xylene

SKIN EFFECTS: Skin irritation: slight to moderate (rabbit)

CARCINOGENICITY

Chemical Name	NTP Status	IARC Status	OSHA Status
Benzene, methyl-		3	
Benzene	1	1	ü
Xylenes (o-,m-,p- isomers)		3	
Ethyl benzene		2B	

Notes: Carcinogenicity: Chronic inhalation exposure to 750 ppm ethyl benzene vapor produced increased incidences of renal tubular hyperplasia and neoplasms (males and females) and testicular adenomas in F344/N rats and alveolar/bronchiolar (males) and hepatocellular (females) neoplasms in B6C3F1 mice.Genetic toxicology studies found ethyl benzene not to be mutagenic or clastogenic. The relevance of these effects to humans are unclear. Ethylbenzene is listed by the IARC as a Group 2B - possible carcinogen.

SENSITIZATION: While there is no evidence that industrially acceptable levels of toluene vapors (e.g., the TLV) have produced cardiac effects in humans, animal studies have shown that inhalation of high levels of toluene produced cardiac sensitization. Such sensitization may cause fatal changes in heart rhythms. This latter effect was shown to be enhanced by hypoxia or the injection of adrenalinlike agents. Prolonged and repeated exposures to high concentrations of toluene have resulted in hearing loss in laboratory rats. While the effect of solvents on the human auditory system is uncertain, solvent abusers exposed to high doses of toluene show signs of hearing loss, and occupational exposure to toluene may interact with noise in causing hearing loss in the work environment. The effects of solvents on human

hearing are uncertain. Solvent abusers and noise interaction with toluene in the work environment may cause signs of hearing loss.

TERATOGENIC EFFECTS: Prolonged and repeated exposures to high concentrations of some volatile hydrocarbon solvents have resulted in hearing loss in rats. Solvent abusers and noise interaction with these solvents in the work environmental may cause symptoms of hearing loss.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: Avoid uncontrolled releases of this material. Where spills are possible, a comprehensive spill response plan should be developed and implemented.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

EMPTY CONTAINER: KEEP OUT OF REACH OF CHILDREN! Empty containers retain product residue and can be dangerous. Do not pressurize, cut weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks static electricity, or other sources of ignition.

RCRA/EPA WASTE INFORMATION: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Flammable Liquids, N.O.S.

TECHNICAL NAME: (Toluene, Xylene)

PRIMARY HAZARD CLASS/DIVISION: 3

UN/NA NUMBER: UN1993

PACKING GROUP: II

NAERG: 128

LABEL: Flammable liquid

15. REGULATORY INFORMATION

UNITED STATES

DOT LABEL SYMBOL AND HAZARD CLASSIFICATION

Flammable Liquid

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: This product should be reported as an immediate (acute) health hazard, delayed (chronic) health hazard, and a fire hazard.

FIRE: Yes **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** Yes

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt.%	CAS
Benzene, methyl-	45 - 55	108-88-3
Xylenes (o-,m-,p- isomers)	40 - 50	1330-20-7
Ethyl benzene	5 - 10	100-41-4

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: To the best of our knowledge, this product is not listed as an extremely hazardous substance.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

Chemical Name	Wt.%	CERCLA RQ
Benzene, methyl-	45 - 55	1,000
Benzene	< 0.01 - 0.1	10
Xylenes (o-,m-,p- isomers)	40 - 50	100
Ethyl benzene	5 - 10	1,000

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
Benzene, methyl-	108-88-3
Benzene	71-43-2
Xylenes (o-,m-,p- isomers)	1330-20-7
Ethyl benzene	100-41-4

TSCA REGULATORY: All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following chemicals known to the State of California to cause cancer and reproductive toxicity: Benzene, Toluene

Chemical Name	Wt.%	Listed
Benzene, methyl-	45 - 55	• Female Reproductive
Benzene	< 0.01 - 0.1	• Cancer • Developmental Toxicity • Male Reproductive
Ethyl benzene	5 - 10	Cancer

GENERAL COMMENTS: The regulatory information is not intended to be comprehensive. Other

regulations may apply to this material.

16. OTHER INFORMATION

PREPARED BY: COMPLIANCE DEPT.

REVISION SUMMARY: New MSDS

HMIS RATING

HEALTH:	**2**
FLAMMABILITY:	**3**
PHYSICAL HAZARD:	**0**
PERSONAL PROTECTION:	**H**

HMIS RATINGS NOTES: The HMIS rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in the MSDS must be considered. Personal protection rating to be supplied by user depending on use conditions.

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